

**AMENDED CLAIMS**

[received by the International Bureau on 14 September 2000 (14.09.00);  
original claims 1-9 replaced by new claims 1-7 (2 pages)]

1. A method for passing dilution water into connection with a stock flow passed from a stock inlet header of a headbox in a paper or board machine, characterized in that, in the method, dilution is carried out in at least two stages using in the first dilution stage (I) valves ( $V_1, V_2, V_3, \dots$ ) fitted with a larger mutual spacing at different points of width across the headbox and passing the dilution water through said valves to desired points of width of the headbox according to the requirement of control of the basis weight of paper or board, and that, in the method, in the second dilution stage (II), dilution water is passed into connection with the stock flow coming from the first dilution stage (I), said dilution water being controlled by means of valves ( $V'_1, V'_2, \dots$ ), which valves ( $V'_1, V'_2, \dots$ ) have been fitted with a denser spacing than the valves ( $V_1, V_2, V_3, \dots$ ) of the first dilution stage (I), and that coarse control of the basis weight profile of the stock ( $M_1$ ) is carried out in the first dilution stage (I) and fine control of the basis weight profile of the stock ( $M_1$ ) is carried out in the second dilution stage (II) across the width of the machine.
2. A method according to claim 1, characterized in that in the second stage (II) of dilution, as dilution water is used water the solids, filler or fibre content of which is substantially lower in percentage terms than that of the dilution water of the first stage (I) of dilution.
3. A method according to claim 1 or 2, characterized in that the dilution water used in the second dilution stage (II) is raw water or clarified white water.
4. A method according to any one of the preceding claims, characterized in that the dilution water of the first stage (I) is white water.
5. A headbox (10) of a paper or board machine which comprises a stock inlet header (J<sub>1</sub>) and after that a tube bank (11) and after the tube bank an intermediate chamber (12) and after the intermediate chamber a turbulence generator (13) and after the turbulence

- generator a slice cone (14) from which stock is passed further onto a forming wire ( $H_1$ ), characterized in that the apparatus comprises valves ( $V_1, V_2, V_3 \dots$ ) of a first dilution stage (I), through which valves dilution water is passed into connection with the stock ( $M_1$ ) passed from the inlet header ( $J_1$ ) to desired points across the width of the headbox
- 5 so as to control the basis weight of the web in the first stage (I), and that the headbox comprises valves ( $V'_1, V'_2, V'_3 \dots$ ) of a second dilution stage (II), through which valves ( $V'_1, V'_2 \dots$ ) the dilution water of the second stage is passed into connection with the stock ( $M_1$ ) coming from the first dilution stage (I), and that the valves ( $V_1, V_2, V_3 \dots$ ) of the first dilution stage (I) are spaced a longer distance from one another than the valves
- 10 ( $V'_1, V'_2, V'_3 \dots$ ) of the second dilution stage (II), in which connection coarse control of the basis weight of the web is carried out by means of the valves ( $V_1, V_2 \dots$ ) of the first dilution stage (I) and fine control of the basis weight of the web is carried out by means of the valves ( $V'_1, V'_2 \dots$ ) of the second dilution stage (II).
- 15 6. A headbox of a paper or board machine according to claim 5, characterized in that the dilution water of the first dilution stage (I) is passed into connection with the stock ( $M_1$ ) passed from the stock inlet header ( $J_1$ ) in connection with the tube bank (11), and that the dilution water of the second dilution stage (II) is passed into connection with the stock ( $M_1$ ) coming from the first dilution stage (I) in connection with the turbulence
- 20 generator (13).
7. A headbox according to claim 5 or 6, characterized in that the apparatus comprises an inlet header ( $J_2$ ) for the dilution water of the second dilution stage (II), said inlet header comprising raw water as dilution water.

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